

Claims:

1. A projecting image display device, comprising:
at least three image projecting sources for projecting images in a different color of light;
a viewing screen on which the images are projected;
at least three lens assemblies each disposed in an optical path between one of the image projecting sources and the viewing screen, each of said lens assemblies including a plurality of lens elements; and
a shading element affixed to at least one of the lens elements, wherein said shading element has a shape and orientation on the lens element that causes an increase in color uniformity across the viewing screen.
2. The projecting image display device of claim 1 wherein said shading element is opaque.
3. The projecting image display device of claim 1 wherein said shading element is grayscale translucent.
4. The projecting image display device of claim 1 wherein said shading element is color translucent.
5. The projecting image display device of claim 1 wherein said shading element is painted onto the lens element.
6. The projecting image display device of claim 1 wherein said shading element is printed onto the lens element.
7. The projecting image display device of claim 1 further comprising an adhesive affixing said shading element to the lens element.

8. The projecting image display device of claim 1 further comprising at least three shading elements each affixed to a lens element in a different one of the lens assemblies.

9. The projecting image display device of claim 1 wherein said image projecting sources are cathode ray tubes

10. The projecting image display device of claim 9 wherein said cathode ray tubes project images in red, green and blue light, respectively.

11. The projecting image display device of claim 1 wherein each of the lens assemblies comprise a plurality of lens elements.

12. The projecting image display device of claim 11 wherein said plurality of lens elements includes an aberration correcting element, a power element and a field flattener element.

13. The projecting image display device of claim 12 wherein said shading element is affixed to the aberration correcting element.

14. The projecting image display device of claim 1 wherein said lens element includes an alignment member for rotationally aligning the lens element.

15. The projecting image display device of claim 14 wherein said alignment member comprises at least one boss.

16. The projecting image display device of claim 14 wherein said alignment member is at least one registration mark located on a surface of the lens element.